

**Fanless
Module**



One Engine, Many Applications

DIGITAL ENGINE

DEX4500 Series

Small Form Factor and low power consumption design

- 2.4L compact size: 200mm(L) x 200mm(W) x 60mm(H).
- Under 90W low power consumption with MoDT technology.
- Fanless design robust thermal solution.

Excellent performance

- Supports Intel® Core™ 2 Duo P8000, P9000 series TDP 25W dual core CPU with 667/800/1066MHz FSB.
- Intel® GM45+ICH9M chipset with GMA X4500MHD graphics engine, supports Microsoft® DirectX™ 10.
- Supports dual channel SO-DIMM DDR-II 667/800MHz memory up to 4GB.

Reliable features for applications

- Robust, rugged mechanical design with anti-shock and anti-vibration properties.
- Wide power range support from DC 12V~20V Input in most of industrial environments.
- Supports Watch Dog Timer function.
- Microsoft® Windows™ XP Embedded image service available

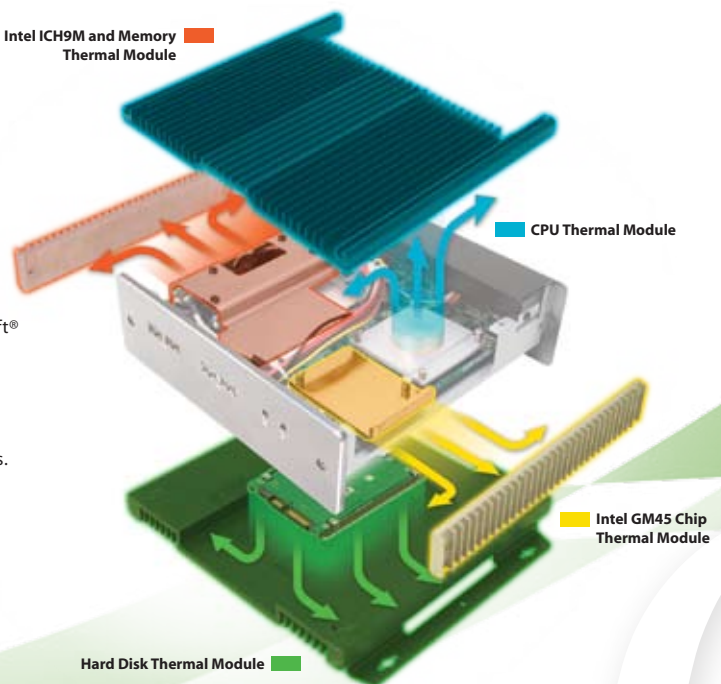
Multimedia features for Digital Signage

- Supports HDMI interface with HDCP protocol for high definition content output.
- Supports dual display through HDMI and DVI connectors.
- Full HD 1080p video playback ability.
- 7.1 channel audio output.

Extension features

- Supports SATA 2.0 2.5" internal hard disk drive.
- Provided e-SATA connector for external device such as hard disk drive or optical drive.
- Provided eight USB 2.0 ports for easy connect to most peripherals.
- Two mini Card slots for function extension.
- Provided RS232 port.
- Gigabit networking.

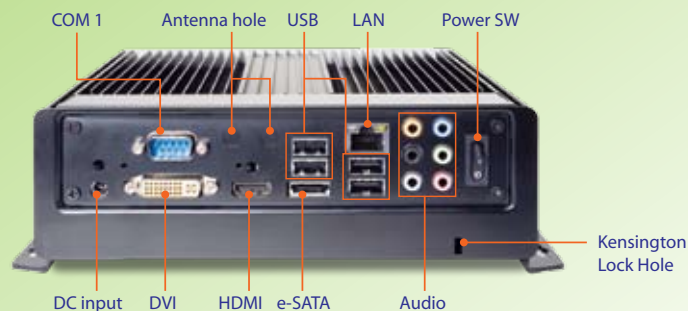
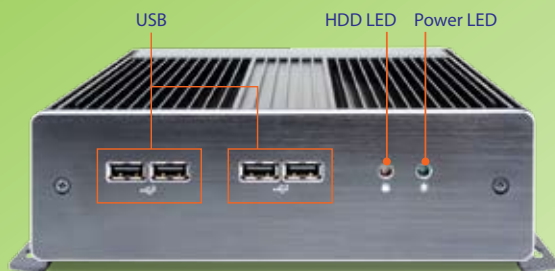
Intel ICH9M and Memory
Thermal Module



Hard Disk Thermal Module

HDCP
HIGH BANDWIDTH DIGITAL CONTENT PROTECTION



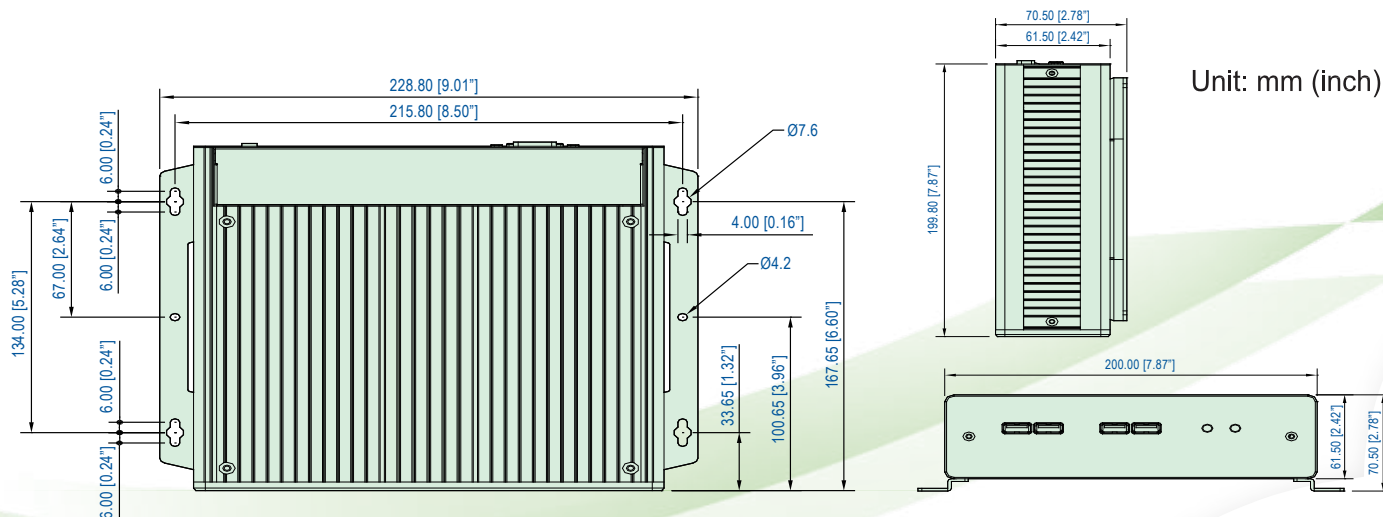


Specifications

Model name	DEX4501	DEX4502
Product SKU		
Territory	Worldwide	Europe
Part Number	91.DE201.I510	91.DE201.I520
EAN/JAN Code	471260-293664-4	471260-293665-1
Product Specification		
Housing Material		SECC/ Aluminum
Housing Color		Black
Dimension	WxHxD(mm)	200(W) x 60(H) x 200(D) mm
	WxHxD(inch)	7.87(W) x 2.36(H) x 7.87(D) inch
Volume(liters)		2.4L
Weight(Kg/Pound)		2.85 kg / 6.27 pound (N.W.)
Form Factor		mini-ITX
CPU	Socket	Socket P
	Type	Support intel Penryn Core 2 Duo CPU TDP=25W
	FSB	667/800/1066 MHz
Chipset	NB	Intel GM45 chipset
	SB	ICH9M
Memory	Dual Channel	Dual Channel
	Type	DDRII SO-DIMM x 2
	DDR	667/800
	Max Memory	4G(1)
Graphics	Chip	Intel GMA X4500 MHD
	DVI Port	x 1
	VGA Port	x 1 (via DVI-to-VGA converter)
	HDMI Port	x 1
Expansion Slot	mini Card Slot	x 2
Audio	Type	Realtek HD Audio Codec ALC888
	Channel	7.1 CH
LAN		Intel Gigabit Ethernet
		10/100/1000

Model name			DEX4501	DEX4502
USB 2.0			x 8 (4 (Rear), 4 (Front))	
Storage	S-ATA Connector		x 3	
Security	Kensington Lock Hole		x 1 (Rear)	
Storage Bay	2.5" SATA II HDD Bay		x 1	
CPU Thermal	Module		AOpen Proprietary Fan Less Thermal Solution	
	Noise		20dB	
WatchDog Timer			1 ~ 255 SEC./ min	
Adapter			90W (20V, 4.5A) AC Adapter	
Input Voltage			AC 100 ~ 240V	
Environment				
MTBF			40,000hrs	
Operating Temperature			-5 ~ 40°C (23 ~ 104°F)	
Storage Temperature			-20 ~ 60°C (-4 ~ 140°F)	
Relative Humidity			90% RH (40°C non-Condensing)	
Operating Vibration			0.5Grms, random, 10~500Hz, X,Y,Z 3Axes, 0.5hr/Axis	
Non-Operating Vibration			2Grms, random, 10~300Hz, X,Y,Z 3Axes, 1hr/Axis	
Operating Shock			8G, Half sine, 11ms duration	
Non-Operating Shock			50G, Half sine, 11ms duration	
Accessory				
AC Adapter	90W PWR 20V Adapter	90.MB457.0010	x 1	
Power Cord	US Power Cord	27.04218.18A0	x 1	
	EU Power Cord	27.027A0.1830		x 1
L Type Holder			x 1	
DVI to VGA converter		25.H0003.0610	x 1	
Power Clamp		38.23002.0010	x 2	
HDMI To DVI Cable 1500mm		50.ADE03.0010	x 1	
SATA to CF Bridge board		90.MA610.0410	x 1	
Utilities & Drivers CD		52.8ET01.0040	x 1	
Assembly Guide		49.DE201.0010	x 1	

AOpen reserves the right to revise all the specification and information contained in this document, which are subject to change without prior notice.
Note (1) : Max. hardware structure. System will not detected to 4GB due to chipset limitation.



Unit: mm (inch)